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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/036,724

12/21/2001

David M. Dashiell

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09/23/2003

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EXAMINER

FEELY, MICHAEL J

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 09/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/036,724

Applicant(s)

DASHIELL, DAVID M.

Examiner

Michael J Feely

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18,20,22,24,26,28,30,32 and 33 is/are allowed.
- 6) ☒ Claim(s) 1-11,13-17,19,21,23,25,27,29,31 and 34-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Pending Claims*

1. Claims 1-11 and 13-36 are pending.

### *Claim Objections*

2. The objection to claims 16, 17, 24, and 25 have been overcome by amendment.

### *Claim Rejections - 35 USC § 112 2<sup>nd</sup> Paragraph*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. The rejection of claims 1, 2, 4, 7, 11, 14, 16, 19, 21, 23, 25, 27, 29, 31, 34, and 36, for the reasons set forth in sections 5 and 6 of the previous Office action, has been overcome by amendment.

5. Claims 1, 2, 4, 7, 11, 14, 16, 19, 21, 23, 25, 27, 29, 31, 34, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1 and 19 contain the following language: "an aqueous emulsion of at least one thermoplastic resin and/or wax and at least one epoxy curing agent, which initiates crosslinking with an epoxy resin, coemulsified with, said at least one thermoplastic resin and/or wax." This language is unclear because it can be interpreted in two ways:

- 1) the epoxy curing agent is coemulsified with the at least one thermoplastic and/or wax;
- or
- 2) the epoxy resin is coemulsified with the at least one thermoplastic and/or wax.

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Based on the specification and Applicants' remarks, it is understood that the instant invention features 1) an epoxy curing agent coemulsified with the at least one thermoplastic and/or wax.

In order to provide improved clarity, the following language is suggested:

- an aqueous emulsion of at least one thermoplastic resin and/or wax and at least one epoxy curing agent, said epoxy curing agent capable of initiating crosslinking with an epoxy resin, and wherein said epoxy curing agent is coemulsified with said at least one thermoplastic resin and/or wax,-.

Claims 2, 4, 7, 11, 14, and 16 are rejected because they depend on claim 1, and claims 21, 23, 25, 27, 29, 31, 34, and 36 are rejected because they depend on claim 19.

***Claim Rejections - 35 USC § 102/103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. The rejection of claims 1-5, 8-11, 16-17, and 35-36 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lorenz et al. (US Pat. No. 6,149,747) and the following technical bulletins: Epon Resins and Modifiers, Physical Properties Guide for Epoxy Resins and Related Products (provided by Resolution Performance Products), and Product Data for Araldite® GT 7013 (provided by Jubail Chemical Industries Company), stands for the reasons set forth in section 9 of the previous Office action.

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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9. The rejection of claims 6, 7, and 13-15 under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. (US Pat. No. 6,149,747) and the following technical bulletins: Epon Resins and Modifiers, Physical Properties Guide for Epoxy Resins and Related Products (provided by Resolution Performance Products), and Product Data for Araldite® GT 7013 (provided by Jubail Chemical Industries Company), stands for the reasons set forth in section 10 of the previous Office action.

***Allowable Subject Matter***

10. Claims 19, 21, 23, 25, 27, 29, 31, and 34 would be allowable if claim 19 is rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

11. Claims 18, 20, 22, 24, 26, 28, 30, 32, and 33 are allowed.

12. The claims are allowed or allowable for the reasons set forth in section 15 of the previous Office action.

***Response to Arguments***

13. Applicant's arguments filed July 14, 2003 have been fully considered but they are not persuasive.

Applicant's arguments state the following:

1) "Lorenz et al. '747 disclose coating formulations, which can comprise epoxy resins and polymerization initiators (cross-linkers) and also discloses coating formulations that can comprise the solids in emulsions. However, there is no indication that the epoxy curing agent (cross-linker) is emulsified with a thermoplastic resin or wax binder."

2) "Lorenz et al. '747 does not specifically teach that the emulsions of epoxy curing agent and thermoplastic resin and/or wax are suitable and provides no indication how an emulsion of such a mixture of solids would be prepared. Coemulsifying the epoxy curing agent and thermoplastic resin and/or wax is not an inherent property in that an emulsion of the two solids can be prepared by combining a separate emulsion of epoxy curing agent and a separate emulsion of thermoplastic resin and/or wax".

Regarding argument No. 1, Lorenz et al. disclose, "The coating formulations of this invention can contain the above identified solids in an aqueous or organic solution, dispersion or emulsion," (column 7, lines 62-64) wherein these solids include:

- a) wax as a main dry component (column 5, line 49 through column 6, line 70);
- b) a binder resin, preferably a reactive epoxy resin together with a crosslinker (column 6, line 8 through column 7, line 21);
- c) other solids (column 7, lines 22-45);
- d) plasticizers (column 7, lines 46-55); and
- e) other conventional additives (column 7, lines 56-61).

Lorenz et al. do not specifically use the terminology "co-emulsified"; however, these components are collectively present in an emulsion. It is assumed that the solids in this emulsion are homogeneous and non-soluble, in order to be classified as an emulsion. Lorenz et al. even add, "The binder resin is preferably compatible with the wax such that it does not separate out in aqueous dispersions or emulsions," (column 7, lines 13-16). It is assumed that the other components, including the crosslinker, exhibit some level of compatibility in order to maintain

the emulsion. Therefore, Lorenz et al. do establish that the epoxy-curing agent (cross-linker) is emulsified *with* a thermoplastic resin or wax binder.

Regarding argument No. 2, Applicant does not clearly define the co-emulsification process; however, it is assumed that “co-emulsification” refers to a process wherein two solids are added and emulsified in a liquid medium at the same time. Lorenz et al. do not explicitly disclose this type of process; rather, they simply refer to an emulsion. The Examiner agrees with the Applicants’ statement that, “an emulsion of the two solids can be prepared by combining a separate emulsion of epoxy curing agent and a separate emulsion of thermoplastic resin and/or wax;” however, the claims in question are composition claims. The compositions are essentially products, and their patentability is based on the materials within – not the manner in which they were prepared.

It has been found that, “Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process” *In re Thorpe*, 777 F. 2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Since the composition of Lorenz et al. meets all of the material requirements of the claimed invention, it would have anticipated or would have been an obvious variation of the claimed composition.

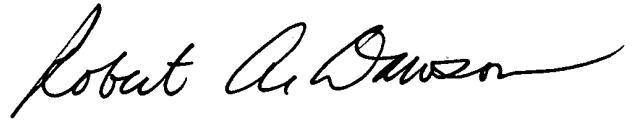
***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Feely whose telephone number is 703-305-0268. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on 703-308-2340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Michael J. Feely  
September 15, 2003



Robert Dawson  
Supervisory Patent Examiner  
Technology Center 1700